

OBITUARY

David J. Allsop (7.12.1974–2013.8.2018)

On 13 August 2018 the world lost a son, a father, a brother, uncle and friend to all who knew him. We also lost a brilliant scientist. David John Allsop was born on 7 December 1974 to David Allsop, a storeman, and Marina Sumner, a senior care worker in Sandbach, Cheshire, England. The youngest of four siblings, David grew up on a council estate, attending Crewe Road Primary School and Sandbach Boy's School. He was the first in his family to go to university, studying a combined degree in geology and geography and graduating from Manchester University in 1994.

In 1997, David commenced his Masters degree at Manchester University and took up a 12-month position at the Sellafield nuclear facility researching the bacterial processing of nuclear waste. Developing an interest in evolutionary biology, between 1998 and 2000 David worked on the Cambridge Meerkat Project and lived with other researchers in the Kalahari Desert. His work showed that while male parents fed both sexes equally, female parents fed the female pups more, indicating that female survival was more important to the colony than males [1]. David then moved to the University of Edinburgh (2000–2004) to undertake a PhD, under Stuart West, on the evolution of sex change in fish. His research showed that the relative timing of sex change was surprisingly invariant across all sex-changing animals; this work appeared in *Nature*, one of two papers David published in that highly prestigious journal [2,3]. He tested these results in the field in Belize, where he found that the proportion of early maturing males can be used as a predictor of the population sex ratio [4].

In 2004, David was awarded a prestigious postdoctoral fellowship from the Royal Commission for the Exhibition of 1851, and subsequently moved to the University of Sydney to work with renowned biologist Rick Shine on the evolution of sex ratios in the southern water skink. David performed laboratory and field-based experiments and found that although the population sex ratio influenced maternal body temperature during pregnancy, the variation in temperature was not great enough to affect litter sex ratios [5].

David then spent several years working for start-up company Emotive, in both Sydney and San Francisco, applying his superb quantitative skills to crunching

complex electroencephalographic data for the development of mind control technology for video games.

In 2009 David changed careers again, accepting a position at the National Drug and Alcohol Research Centre (University of New South Wales) working under Jan Copeland. His five years with the National Drug and Alcohol Research Centre produced important contributions, notably the Cannabis Withdrawal Scale, and a groundbreaking clinical trial of the use of nabiximols (Sativex) in treating cannabis dependence. The Cannabis Withdrawal Scale provided clinicians with the first accurate measure of the nature and severity of cannabis withdrawal and the clinical information to facilitate the management of such withdrawal [6]. The nabiximols study was a world-first randomised placebo-controlled trial of a buccal spray containing tetrahydrocannabinol and cannabidiol as a substitution therapy for patients undergoing inpatient cannabis withdrawal [7]. Those provided with nabiximols stayed in treatment longer, experienced fewer withdrawal symptoms, and had no more adverse events than controls. During his time at the National Drug and Alcohol Research Centre, David was a much-valued contributor to the intellectual life of the centre and at the centre of social activities.

During the nabiximols clinical trial, David forged strong links with addiction medicine specialist Nick Lintzeris (Langton Centre) and psychopharmacologist Iain McGregor. In early 2014, David moved to the Division of Addiction Medicine, and later the School of Psychology at the University of Sydney, to collaborate with Nick and Iain on a range of clinical studies involving cannabis. David's contribution included establishing an inpatient trial of the effects of exercise on cannabis withdrawal, formulating a larger (recently concluded) outpatient trial of nabiximols in the management of cannabis dependence [8], and studies of pain thresholds and tolerance in regular cannabis users.

In late 2014, David, together with Iain McGregor and Nick Lintzeris, accepted an invitation from Lucy Haslam to attend the inaugural United in Compassion conference in Tamworth, a meeting called to accelerate access to medicinal cannabis products for Australian patients in need. At this lively gathering, David explained the complexities of cannabinoid trials, and the trio called for the establishment of a

cannabinoid research centre. Amongst the audience was Michael Lambert, who was successfully treating his daughter Katelyn with illicit cannabinoid products for her severe epilepsy. With David's encouragement, Michael discussed the idea of a cannabinoid research centre with his parents, Barry and Joy Lambert, and in June 2015 they donated \$33.7 m to the University of Sydney to establish the Lambert Initiative for Cannabinoid Therapeutics.

David was promoted to Associate Professor and Associate Director of Clinical Research at the Lambert Initiative and set about establishing a cannabinoid research program—a formidable task fraught with regulatory, political, ethical and professional difficulties. David generated ideas for surveys, community-based observational studies, laboratory studies and clinical trials that would move the medicinal cannabis research agenda forward. Highlights included the PELICAN study, an examination of parents' use of illicit cannabis products to treat children with severe epilepsy, which included a chemical analysis of illicit oils and tinctures [9]. The CAMS16 study, published in the *Medical Journal of Australia* on the day David died, was the largest ever ($N > 1700$) study of Australians self-medicating with illicit cannabis [10]. In collaboration with Paul Amminger and Pat McGorry, David established the CAPS study, a clinical trial of cannabidiol in young people with anxiety attending headspace centres in Melbourne. He was an investigator in clinical trials of cannabinoids for palliative care and chemotherapy-induced nausea and vomiting, and played a key role in securing compassionate access to the cannabidiol product Epidiolex for children in Queensland living with severe epilepsy.

Davis is recognised as a pioneer of Australian medicinal cannabis research. His research was not only scientifically rigorous but of huge interest to diverse audiences, generating constant mainstream media mentions, social media excitement and robust public and policy debate. Many will be surprised to know that the prospect of a conference presentation or media commitment would send him into a hysterical spiral—he hated formal presentations. But, ironically, conference audiences always loved him.

David's legacy will live on: forthcoming manuscripts will describe some of his finest work, while the next generation of cannabinoid scientists in Australia is already benefiting from the infrastructure and intellectual capital that he created at the Lambert Initiative. Tributes flowed in from many international leaders in his field in the days after his death. He co-authored

over 30 high-quality peer-reviewed research papers, and was awarded over \$40 million in competitive research funding.

David was an insightful and critical thinker, always asking incisive questions and always the first to the bar. He was a valued, hardworking leader with endless energy, enthusiasm and a wicked sense of humour. He was unfailingly generous, compassionate and empathetic. We will miss him sorely.

David is survived by his mother, Marina, children Dylan and Eartha and siblings Paul, Nick and Beverly.

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